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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,282	06/26/2003	Zili Sun	60,298-512; ST 267	4951

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EXAMINER

TRIEU, THERESA

ART UNIT

PAPER NUMBER

3748

DATE MAILED: 01/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/607,282

Applicant(s)

SUN ET AL.

Examiner

Theresa Trieu

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on June 26, 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “second valve has a first chamber, second chamber” recited in claims 2 and 7; “first valve includes a piston” recited in claims 3, 5 and 7; “second valve having two enlarge portions and an intermediate thinner portion” recited in claims 4 and 8, must be shown or the feature(s) canceled from the claim(s). Applicants should also not that their subject matter needs to be incorporated into the specification and the drawings. No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: “48 and 54” (see Fig. 2. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities:

- On page 4, [0018] paragraph, line 5, "both the valves 29 and 40" should be changed to -- both the valves 29 and 44 --.

- On page 5, [0019] paragraph, line 1, "Figure 3B" should be changed to --Figure 3A --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1 and 7, the phrase "a pressure differential" renders the claim indefinite because it is unclear which of the two pressures are to be claimed. Claims 2-6 and 8 are rejected by virtue of their dependence on claims 1 and 7.

Claim Suggestions

5. Claims 1-8 are objected to because of the following informalities:

- Claim 1, line 11, "a second of said valves" should be changed to --a second valve --.

Art Unit: 3748

- Claim 2: line 2, "a suction pressure" should be changed to -- the suction pressure --; line 3, "said piston" should be changed to -- a piston --; line 4 and 5, "a compression chamber" should be changed to -- the compression chamber--.

- Claims 3 and 5, line 4, "a compression chamber to a suction chamber" should be changed to -- the compression chamber to the suction chamber --.

- Claim 7, line 11, "a second of said valves" should be changed to --a second valve --; line 15, "a suction pressure" should be changed to -- the suction pressure --; line 16, "said piston" should be changed to -- a piston --; line 17 and 18, "a compression chamber" should be changed to -- the compression chamber--; line 22, "a compression chamber to a suction chamber" should be changed to -- the compression chamber to the suction chamber --.

Appropriate correction is required.

Allowable Subject Matter

6. Claims 1-8 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of eight patents.

Mizuno et al. (Patent Number 4,669,962) disclose a scroll compressor with pressure differential maintained for supplying oil.

Mabe et al. (Patent Number 4,904,164) disclose a scroll type compressor with variable displacement mechanism.

Iio (Patent Number 5,236,316) discloses a scroll type compressor having a capacity control block.

Miura et al. (Patent Number 5,356,271) disclose a capacity control mechanism for scroll type compressor.

Higashiyama (Patent Number 5,993,171) discloses a scroll type compressor with variable displacement mechanism.

Sato (Publication Number JP 63-212789) discloses a variable capacity type scroll compressor.

Doi et al. (Publication Number JP 01-106990) discloses a capacity controlling mechanism for scroll type compressor.

Matsumoto et al. (Publication Number JP 04-287888) discloses a variable capacity scroll compressor.

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 703-308-6434. The examiner can normally be reached on Monday-Thursday 7:30am- 6:00pm - Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E Denion can be reached on 703-308-2623. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Application/Control Number: 10/607,282

Page 6

Art Unit: 3748

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

TT

January 14, 2004



Theresa Trieu

Patent Examiner

Art Unit: 3748